

REMARKS

Claims 1-5, 7-16, and 18-38 are pending in the present application. Claim 6 was previously cancelled and claim 17 has been cancelled herein. Claims 1, 16, 24, and 28 have been amended. No new matter has been added.

Claims 1-3, 8-11, and 15 have been rejected under 35 U.S.C. § 102(e) as assertedly being anticipated by U.S. Patent No. 6,486,038 to Maszara et al. (hereinafter "Maszara"). Claims 16, 18-19, 21-22, and 24-25 have been rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Maszara. Claims 28-30 and 34-37 have been rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Maszara. Claims 5, 14, 27, and 33 have been rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Maszara in view of U.S. Patent No. 6,864,152 to Mirbedini et al. (hereinafter "Mirbedini"). Claims 4, 7, 12-13, 17, 20, 23, 26, 31-32, and 38 have been rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Maszara in view of U.S. Patent Application Publication No. 2002/0090763 to Tseng (hereinafter "Tseng"). Applicant respectfully traverses these rejections.

Claim 1 as amended recites, "patterning the mask layer to define active regions and inactive regions of the active layer, such that the inactive regions are minimally etched." Applicant respectfully submits that Maszara does not teach or suggest the limitations of claim 1. In contrast to the limitations of claim 1, Maszara discloses a process whereby the silicon active region is etched *significantly* to form an isolation trench. Maszara, Abstract ("etching the silicon active layer to form an isolation trench"); Maszara, col. 5, l. 33-40 ("[t]he isolation trench ... may be formed by a series of conventional steps ... except that the trench-forming etching is terminated prior to "etch through" of the silicon at the bottom of the isolation trench."). Thus, the etching steps in Maszara are conventional, which shows that the active silicon layer is etched considerably. Maszara, col. 5, l. 44-47 ("[t]he steps of forming the isolation trench of the present invention are conventional."). Claim 1, on the other hand, specifies minimal etching of the active region, which is unconventional. Applicant respectfully submits that the references of record do not teach or suggest the limitations of claim 1.

Claims 2-15 depend from claim 1 and add further limitations. Applicant respectfully submits that these claims are allowable over the references of record because they depend from an allowable claim and add further limitations.

Claim 16 as amended recites, "such that 25Å to 400Å of the active layer remains in the etched regions." Applicant respectfully submits that Maszara does not teach or suggest the limitations of claim 16. Maszara does not disclose any specific thickness of the etched layer, although Maszara states that some thickness remains in the etched region. Applicant respectfully submits that the references of record do not teach or suggest the limitations of claim 16.

Claims 18-27 depend from claim 16 and add further limitations. In addition, claim 24 has been amended to recite, "removing the mask after oxidizing the active layer, through a wet-dip process." "Etching" is changed to "oxidizing" to comply with the specifications. See Specification, ¶28 (wet dip performed after oxidation). Applicant respectfully submits that these claims are allowable over the references of record because they depend from an allowable claim and add further limitations.

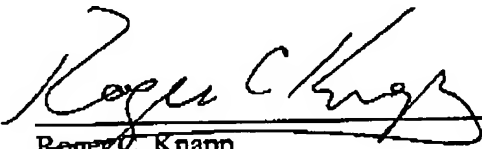
Claim 28 as amended recites, "patterning the mask layer to identify active regions and inactive regions of the active layer, such that the active regions are minimally etched." Applicant respectfully submits that Maszara does not teach or suggest this limitation. As discussed above with reference to claim 1, Maszara discloses a process whereby the silicon active layer is etched *significantly* to form an isolation trench. Maszara, Abstract ("etching the silicon active layer to form an isolation trench"); Maszara, col. 5, l. 33-40 ("[t]he isolation trench ... may be formed by a series of conventional steps ... except that the trench-forming etching is terminated prior to "etch through" of the silicon at the bottom of the isolation trench."). Claim 28, on the other hand, specifies minimal etching of the active region. Applicant respectfully submits that the references of record do not teach or suggest the limitations of claim 28.

Claims 29-38 depend from claim 28 and add further limitations. Applicant respectfully submits that these claims are allowable over the references of record because they depend from an allowable claim and add further limitations.

In view of the above, Applicant respectfully submits that the application is in condition for allowance and requests that the Examiner pass the case to issuance. If the Examiner should have any questions, Applicant requests that the Examiner contact Applicant's attorney at the address below. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

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Date


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